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# Health

*A Journal Devoted to Healthful Living*

**Edited By Dr. U. Rama Rau & U. Krishna Rau, M.B.B.S.**

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## EDITORIAL

## LIFE INSURANCE AND PUBLIC HEALTH.

Life Insurance and Co-operation are the two great heritages, which the East has acquired from the West, in the economic field. In an agricultural country like India, in ancient days, where land was the greatest asset, where barter was the medium of exchange, where the joint family system provided the necessary labour and protection, where the wants of the individuals were few and where men were happy, contented and long-lived, there was no need for insurance. But things have completely altered now. The inroads of foreign civilization, the imparting of a soulless education, the creation of a middle class of unemployed educated young men, the multiplicity of wants bordering on luxuries, the desertion of villages and overcrowding in towns, the disruption of the homes and the separationist tendencies in the joint families, the speedy industrialisation and swift means of communication—all these and many more have made physical wrecks of the present day Indians generally, whose lives are attended with risks at every moment. Under such stress and strain and hurly-burly of existence to lay by something to be of use to them at dotage or to their dependents after death is indeed an act of prudence and the Life Insurance Companies are real boons to the people, in as much as they come to their succour in times of need. The Indian Life Insurance Companies, though only of recent growth, have one and all of them acquitted themselves creditably and their stability, financial soundness and business acumen are matters for admiration and commendation.

But huge profits and surplus

balances do not constitute the be-all and end-all of existence of the Life Insurance Companies. These may be the outcome of a careful selection of policy-holders by over-strict medical examination, thus minimising premature mortality, and judicious investments. Business aspect apart, there is the humanitarian aspect of the problem which is now being sadly neglected by the Insurance Companies. The provision of free medical relief to their constituents, the safeguarding of their health and comforts by giving them housing facilities and by supplying them with good and unadulterated provisions at cheap rates especially nutritious foods such as milk, ghee, oil etc., the imparting of education more especially health and moral education to them and their children are duties that rightly devolve on the Insurance Companies. The Insurance Companies will be amply repaid by a corresponding prolongation of the lives of the Policy holders and larger returns. The medical examination at the time of admission, however strict it may be, will never do to ensure the health and safety of the candidates for all time to come. India is visited periodically with many diseases such as small-pox, typhoid, cholera, pnuemonia, influenza and the like which carry away heavy tolls, the victims being chiefly city and town dwellers. Malaria is another scourge to which the Indians are often subjected and which considerably diminishes the earning capacity of the individuals and thereby renders them unable to meet their premium demands. Tuberculosis is another disease which is widespread in India and has to be guarded against.

The lapses of policies are heavy and deplorable and it was estimated that during 1929, the total sums assured and bonuses which lapsed in all the Companies in India were about Rs. 5,32,56,000. In 1930, they were Rs. 6,97,16,000. The world trade depression, retrenchment of salaries and the general fall in prices of commodities may also be contributory factors. But above all this, there is the essential constant factor of sickness and suffering which are responsible for the lapses. In Western Countries, the Insurance Companies have undertaken not only to cure diseases among their constituents but also to prevent them; but the Companies in India, while borrowing only the business aspect, have unfortunately failed to copy this humanitarian principle from the West. Prof. K. B. Madhava, Actuary, Mysore University had drawn pointed attention of the public and the Insurance Companies to this aspect of the problem in his admirable article published in January 1932 Issue of 'HEALTH' and we invite our readers to a closer study of that article now for a wider understanding of the subject. We are glad to find, however, that the Insurance Companies in India are fast realizing their duties and responsibilities and the latest Presidential address of Mr. Nalini Ranjan Sarker published in 'The Peace-Guardian' of March '33 contains the following exhortation to the members of the Association :—

"There is an important matter which was exercising my mind for some time regarding the extension of our services in the cause of humanity in general and our policy-holders in particular. We recognise that we are

directly rendering the services of insurance to them and indirectly helping the national economic development by our judicious investments in that direction. We are now at an advanced position. In my opinion, the time has come when we can at least make an experiment in the direction of providing better health advice, medical relief and education to our countrymen and the policy-holders. The Indian Life Offices, particularly the members of our Association, now command an excellent and wide-spread organisation throughout the country for the purpose and if we desire to take advantage of those facilities, it will be easy to effect our purpose. Apart from the question of rendering a valuable service, suppose that the policy-holders lived just one year more, as a result of the medical aid and our health propaganda than they would otherwise do, it would mean a very considerable gain to the offices. Then by pooling the medical resources of the members, it would be possible to effect improvement in a number of ways that would assist us in the selection of lives. It is also likely to improve Indian mortality experience. The method and measures for the purpose may be several and varied; it is not my intention to formulate any scheme, but I hope you will keep the suggestion in view and try to evolve some scheme to suit our purpose. Perhaps something on the lines on which the Metropolitan Company of New York is working will be found acceptable."

We hope that this advice has not fallen on deaf ears and that ere long the Insurance Companies in India will make a beginning in this direction for the mutual benefit of themselves and the policy-holders.

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# ENLARGEMENT OF THE SPLEEN IN CHILDREN

BY

M. Narayana Pai, M.B.B.S.,

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The spleen is an organ situated in the upper part of the abdomen on the left side, sheltered by the lower six ribs. It is very vascular and fleshy and normally contains about three ounces of blood. The normal weight of the spleen in an adult is about five ounces; in a child aged six years, it is about three ounces.

Does the spleen perform any useful function to the body? Is it as necessary for the maintenance of life as the brain, heart, lungs, liver or kidneys? Before the questions are answered, a few words about the composition of the blood and its function will not be out of place.

The blood consists of a fluid portion or serum and a solid portion which consists chiefly of (1) small cells red in colour, without a nucleus and which contain iron pigment and oxygen. These are called the Red Corpuscles and a deficiency of these constitute what is termed "Anæmia". There are about five million red blood cells

in every cubic millimetre of blood in a healthy person. (2) White nucleated cells called leucocytes which are slightly bigger in size than the red blood corpuscles. There are about seven thousand leucocytes in every cubic millimetre of blood in a healthy person.

The red corpuscles perform the important function of carrying oxygen to the tissues. Loss of function of these cells is incompatible with life, as oxygen is absolutely necessary for the body.

The average life of a red blood cell is supposed to be about eighty days after which it undergoes destruction in the spleen and the iron pigment in the red corpuscle is eliminated from the body through the intestines and the urine. The spleen performs a useful function of getting rid of all functionally useless red corpuscles.

The leucocytes play an important part in the defensive mechanism of the body—in fact they are the soldiers inside the body fortress. Whenever the body is attacked by disease, leucocytes rush to the area invaded, fight the disease and in many cases overpower the foe. If the disease is too virulent, the leucocytes are overpowered and the human fortress crumbles down and the man dies. Thus the leucocytes perform a very useful function in the maintenance of health by keeping up the normal resistance of the individual against infections.

Coming now to the functions of the spleen, the answer to the first question viz., "Does the spleen perform any useful function to the body?" the answer is YES. It has been found that the spleen increases in size during digestion. It is therefore believed that it is a kind of reservoir of blood. It is also a workshop where all the functionally useless red blood cells undergo destruction and elimination from the body.

Regarding the answer to the second question, it is generally agreed that the spleen is not absolutely essential for the maintenance of life as the brain, lungs or heart. Its functions can be carried on by other tissues. The spleen is surgically removed for a number of diseases and no ill effects are noticed in patients who have undergone this operation. In this respect it stands on the same level as the appendix which is frequently removed without any ill effects.

What then is the importance of the spleen? It is a popular notion that enlargement of liver and spleen is an indication of disease so much so that there are Liver and Spleen Specialists who treat no cases except those of enlargements of the liver and spleen. This popular notion is quite justified. Whenever a doctor finds an enlarged spleen in a patient, especially a child, he always pushes on the examination still further; for, he very often gets the clue as to the cause of the child's ill health by investigating the cause of the splenic enlargement.

The incidence of splenic enlargement in children and its association with ill health is so common in India that every parent should seek medical advice whenever the condition is suspected.

How can one diagnose enlargement of the spleen? It is quite easy in the majority of cases and does not require a doctor. An intelligent parent can,

by following this method recognise the condition in 75% of cases.

Lay the child flat on the back and fold up thigh on the abdomen and the leg on the thigh, to relax the abdominal muscles. Ask the child to breathe freely in and out and not hold its breath. Then, by means of the palm of the hand and fingers, palpate the upper part of the left side of the abdomen, above and to the left of the navel. Go on palpating upwards towards the lower edges of the left ribs. If the spleen is markedly enlarged it will be found striking against the fingers. A firm fleshy and at times hard, lump will be found striking against the palm and fingers at every act of respiration. The majority of cases can be successfully palpated by an intelligent layman.

The causes of enlargement of the spleen in India are as varied as they are important. The most important causes are :—

(1) Fevers of an irregular longstanding nature such as malaria and kala-azar—65% of cases.

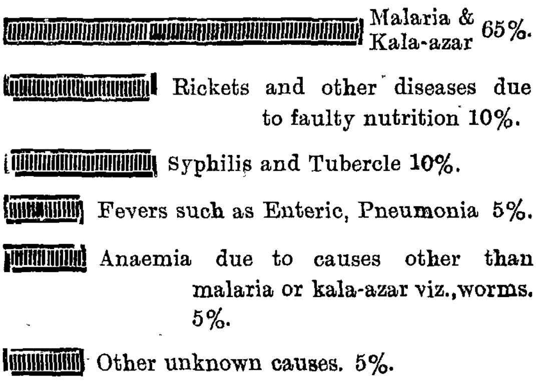
(2) Fevers of a shorter duration such as typhoid fever, pneumonia etc.—5% of cases.

(3) "Anæmia"—an impoverished condition of the blood due to infection with hook-worms round-worms, other worms or other causes not due to worms.

(4) Diseases due to faulty nutrition such as Rickets, where the diet of the child is lacking in certain essential "food factors" called vitamines.

(5) Diseases like syphilis and tuberculosis.

The above can be represented thus :




*(To be continued).*

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## A GENERAL TALK WITH CONSUMPTIVES.

BY

DR. R. L. SONI, M.B., B.S.

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PULMONARY Tuberculosis, popularly known as Consumption, is not a modern creation. In fact it has been known from very ancient times. But the widespread incidence and great intensity appear to be a modern contribution. Modern society and civilisation, despite all its apparent glamour and charm, has got in its fold certain factors which favour the spread of this disease. The consequences, bad as they are, become all the worse when two different civilisations come in conflict with each other, and the Ancient

tries to copy the Modern. Such has been the case with India for the last one century and the consequences are obvious. External show of false richness has gone on side by side with increase in internal poverty ; the worst aspects of the civilisation have been copied and insanitary artificialities of life assimilated without provision of means enough to resist the evil effects by modern sanitation. The evils associated with modern civilisation—physical, financial, mental and sexual strain under extremely artificial conditions of life—have been to a great extent remedied with the advent of 20th century by the glorious advancement in the field of practical sanitation and regulation laws relating to the use of physical and mental energy, in the West. But in India the 'conflict' has brought about a great damage. Modern sanitation like modern civilisation is too costly for a place like India. Modern civilisation divorced from modern sanitation is a curse and it is this curse India is under. External glamour is kept up but the body is allowed to be starved and domestic and personal hygiene neglected. Going deep into the domestic and family histories of Indian consumptives, one would not fail to trace out some such cause lying at the bottom. The remedy lies in keeping the body strong even at the cost of false external glamour.

Now let us see, what consumption really is?

A consumptive hardly needs be told what it is, for generally by the time he is labelled as such, he has formed some idea about it. Anyhow let us review its nature in brief.

A perpetual warfare has been going on between human lungs and the disease causing germ called Tubercle Bacillus (T.B.) from time immemorial and the diagnosis of consumption means a formal declaration of victory for T. B. Let it be understood that the entry of T.B. into our system is not consumption. It merely means that the battle is begun and most of us are already engaged in such a battle. So slow and underhand is the process that we know of it only when it is well advanced. In this vital warfare certain factors tend to influence the chances of victory or defeat for one or the other of the contending forces. T. B. tends to assert its supremacy but it can only do so successfully when the conditions are favourable for it. Conditions that are favourable for T. B. are obviously disastrous for the other party and what is 'sweet' for man is 'poison' for T.B. T.B. comes with the force and mission of destruction. The 'defence force' of the human body sets up forces of 'resistance' to this destruction. More efficient the 'resistance' lesser chances there are for destruction. Invasion accomplished, the message of 'invasion' spreads the whole body through the agency of very complicated biological processes and the choice of the battlefield depends on the weakness of the spot. We are here concerned with only that aspect of the 'invasion' wherein lungs figure as the 'battlefield'.

Now it is clear that an efficient 'defence force' of the body only can put up a fight against T.B. It is a force that resists 'invasion' and it is a force that fights a faithful battle when 'invasion' occurs. It is the efficiency of this 'resistance' that determines the

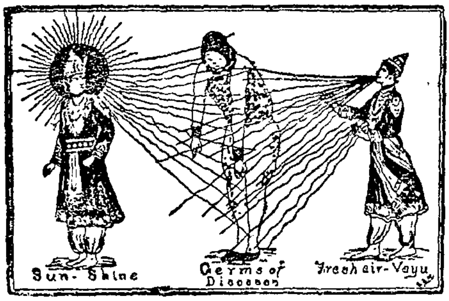
outlook for life and contributes towards the success of a treatment. In fact treatment, through varied channels though, aims at re-inforcing and maintaining this ' resistance'.

Let us see, what factors help to build up this 'resistance'. A healthy life is all that is wanted and a healthy life pre-supposes good food, living in plenty of fresh air and sun light, regulated hours for work and rest, play and pleasure,a due regard for personal, sexual and domestic hygiene, and freedom from continuous worry and mental strain. Good food means fresh fruits, green fresh vegetables, fresh milk cream and butter, fresh eggs, clean clear water and other easily digestible food—raw or cooked—eaten after thorough chewing. All this sounds a sound health and that sounds a defeat for T. B. But mind, a defeat for T. B. is not a defeat for ever. It simply means that T. B. has simply retired for the time being and in its retirement is keeping a watchful eye for the next chance to re-assert.

On the other hand poverty, evil social customs and ignorance enter into a dangerous alliance and bring forth insanitary surroundings, early marriage, purda system and the like, poor food and bad drinks, indifference towards exercise and regulated life, and financial, domestic, business, and sexual worry. These together with repeated and neglected minor colds and coughs, weaken the ' resisting force ' of the body and lungs. The obvious result is that T. B. marches on with trumpets of ' Victory '—a victory that consumes the body.

A person who has developed such a battle-field in his lungs, is said to suffer from Tuberculosis of the lungs or Consumption and in general language is called a 'Consumptive'. And a consumptive well knows what it means —the smouldering fires of the underhand battle-field gradually consume the body and if proper treatment is not instituted in time, the battle leads to extinguishing the fire of life—a sad end and especially sad, for the germ has great charm for the youths and the brilliant brains.

Thus consumption is a disease caused by a germ called T. B. which entering the system takes its abode in the lungs and slowly begins to destroy parts of the lungs on the one hand and spreads its poison to the whole body on the other. This destructive activity of the




*Sun-light and fresh air are the worst enemies of T.B.*

T. B. can be definitely restricted by an efficient ' body resistance'. And this ' body resistance ' to be developed requires good food, good air and good living. An efficient ' body resistance ' is not only a great protection against developing the disease but is also a great contributory force towards the success of a treatment, even when the disease is developed. So it behoves us all—whether consumptives, pre-consumptives or non-consumptives—to make sincere efforts to maintain and develop this force under the proper

medical advice. Consumptives need in addition proper medical supervision.

The disease in its pre-consumptive and consumptive stages, is associated with certain 'signs', which indicate the nature of its intensity and these signs help us to indicate the line of treatment most beneficial in individual cases. No consumptive can expect to get better without proper medical control. Every consumptive needs 'a mode of life' more than medicines and this 'mode of life' is not a matter of paper prescription. It requires discipline and training for a variable period in individual cases, under expert medical eyes and better still in a properly regulated institution *i.e.*, special hospital or a sanatorium. Modern treatment is a great advancement and inspires a bright ray of hope to otherwise hopelessly condemned patients. Patients under proper treatment and supervision improve so much that after a time they can return to their vocation but with a full consciousness of the value of the gospel of 'mode of life'. Only what is wanted, is a life of contentment with boundary-limits of exertion, and high ambitions are to be curbed. Some of these patients in virtue of their regular life become an envy to their lazy non-consumptive friends. But alas! After recovery even some exceptionally good lives are lost at the altar of Ambition of one or the other sort.

Before I stop, I should mention in passing that a consumptive in bed or walking about after treatment, owes certain sacred duties. He should know what he ought to know. He has to learn .—

1. What Consumption is?
2. What is his duty to himself?
3. What is his duty to others?

Otherwise he is not only a danger to himself, but is also a potential source of danger to those loving souls that surround him and without whom he is doomed. The discussion of this and other important aspects of the disease, I had better take up piecemeal, at some other time.

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## DYSENTERY

BY

*Asst. Honorary Adviser, Public Health, Trivandrum.*

**General Description.**—Dysentary is a common and serious bowel disease. It is responsible for numerous infant deaths. Although not as spectacular and terrifying a visitant as cholera, dysentery is more widespread and persistent. The term "Dysentery" is broadly applied to several forms of infective inflammation of the large intestine, attended by abdominal pain, straining at stools, and the passage of a large number of evacuations characterized by the presence of blood and mucus. The two important types of dysentery are:—

(*a*) Bacillary Dysentery.

(*b*) Amæbic Dysentery.

While the former is an acute disease that may assume an epidemic form, the latter may occur either as acute or chronic.

**Cause.**—Bacillary dysentery is caused

by a vegetable parasite called the "Bacillus dysenteriæ" of which several groups are known to exist. The micro-organism responsible for amœbic dysentery is an animal parasite called "Entamœba histolytica". These parasites are discharged through the stools of a patient, or a carrier whether healthy or convalescent. They die in a short period when dried, but live for some days in water or moisture.

**Mode of Infection.**—The causative agents of dysentery gain access to the body solely through the mouth along with articles of food and drink. These organisms then lodge themselves in the large intestine where they set up acute inflammation.

The sources of infection are:—patients, contacts and carriers. Dysentery germs may be communicated from those sources to healthy individuals in various ways. Water polluted with infected fæces, and food contaminated by flies and soiled fingers are the usual agencies spreading infection.

Those who are in an enfeebled state of health owing to starvation, unsuitable dietary, physical exhaustion or exposure, or whose health has been undermined and resistance lowered by diseases such as, hookworm, malaria, enteric fever and tuberculosis have great difficulty through weakness in warding off attacks of dysentery. The environmental factors that promote the spread of the disease are overcrowding, lack of cleanliness, widespread soil and water pollution, and other unhygienic conditions.

**Symptoms.**—(*a*) *Bacillary Dysentery.* The onset of bacillary dysentery is sudden with slight fever, pain in the abdomen, frequen stools and straining. Vomiting also may occur. The attack may be in all degrees of severity varying from a mild diarrhœa to an acute fulminating cholera-like form. In very acute cases, the patient becomes seriously ill in a day or two; the motions increase in frequency, the pain is of great intensity, the patient becomes toxic and delirious and death may occur on the 3rd or 4th day. In cases of moderate severity, recovery may be reached in 2 or 3 weeks, all the symptoms gradually abating. Some attacks may last for many weeks or months and some may turn out to be chronic. Relapses too may occur after apparent recovery.

(*b*) *Amœbic Dysentery.* Amœbic dysentery often sets in insidiously and runs a chronic course with frequent intermissions and relapses. In mild attacks there are only such vague symptoms as headache, weakness, slight abdominal pains and occasional mucous diarrhœa. Acute cases are characterised by straining and painful discharge of a little blood and mucus every few minutes. The patient may become rapidly emaciated and death may occur from exhaustion, intestinal hæmorrhage or perforation and liver abscess. The disease has a tendency to take a chronic form which causes capricious appetite, disordered digestion and alternate constipation and diarrhœa over a prolonged period. Chronic attacks are very distressing and debilitating. The dangerous complication attending amœbic dysentery is the formation of liver abscesses.

**Treatment.**—Every case of dysentery is serious and hence should be treated by a competent physician. The promiscuous taking of ordinary medicines

or other patent medicines for diarrhœa is inadvisable.

The patient should be kept at rest in bed from the onset of the attack. Bed-pans or other necessary facilities should be provided for passing motion.

The patient should be kept warm with the help of flannel abdominal binders or other hot applications to the abdomen.

Diet which should be liquid must be simple, nutritious and easily assimilable; it should also be reduced to the smallest possible amount. Whey, boiled milk, thin rice-gruel, barley water or egg albumin water are suitable. With convalescence the diet may be increased gradually. Return to solid food is permissible only after complete recovery. Want of care in these matters may lead to complications and relapses.

**Prevention.**—Like other bowel diseases such as cholera and typhoid, dysentery is easily preventable. The following important measures are to be carried out :—

(*a*) **Specific preventive measures in case of an attack.**

(1) Consult the physician when looseness of bowels occurs. Rest in bed and take only fluid foods. This checks the disease from becoming serious.

(2) Disinfect the patient's bowel discharges with Jeyes' Fluid and dispose them off by burial or burning; his linen should be boiled and well sunned; his dishes and wash-pans should be scalded; these prevent the disease from spreading to others.

*Flies carry disease germs ; so protect your food from flies.*

(*b*) **General Preventive Measures.**

(1) Avoid soil pollution and use sanitary latrines.

(2) Avoid using unclean water; use only boiled water for drinking and cleansing the mouth and teeth.

(3) Avoid unclean food. Keep food and drink well-protected from flies and dust. Use only well-cooked food; do not eat raw and cold foodstuffs. Avoid contaminating the food by soiled fingers. People handling food should have clean hands and clean habits.

# THE GANGES WATER—ITS PURITY, ITS SANCTITY.

BY

IQBAL NARAYAN MEHTA, B.A.C.E.,

*Haridwar.*

In the March No. of "Health" I found an interesting article by the learned Editor on "The Mahamakam Festival" at Kumbakonam and on page 66, a reference to Mother Ganges of which I am an earnest and ardent devotee. The description therein given was rather brief and it could not naturally be long because it was hardly relevant to the point.

This sacred river is alleged to have taken its birth from Gir Parbat in the Himalayas which is at a height of 13800 feet above the sea level. It comes out of a cave Gau Mukhi at a height of 13570 feet above the sea level. Nobody has ever ventured to go into this cave and nothing definite can be said as to its origin. Other rivers trace their origin from springs but in the case of Mother Ganges, it is not so. It passes through hilly tracts occupying the whole gorge, the width varying at places. Near Haridwar its width at its narrowest point is about one mile. From its place of origin to Haridwar it traverses a distance of about 189 miles through a very sacred tract which has been known as Tapo Ban. It is here that Bhagwan Ram and brother Lakshman worshipped. It is here that Sage Kapil passed his life as an ascetic. It is here that Shri Shankaracharya Maharaj worshipped and got inspired. It is here that recently Swami Ram Tirath roamed and talked with the unknown. I can go on as to this Tapo Ban but I am sorry I will be off the point.

There is a distinct and interesting mythology connected with the birth of Ganges. How Sagar's 60000 sons got dead at the 'Sap' of Rishi Kapil and how Raja Bhagirath practised austerities and ultimately succeeded in bringing down Mother Ganges to bless this earth and how Lord Shiva helped in taking the whole burden of Mother Ganges in his Jatta. (Locked and matted hair.)

To an outsider and superficial observer it is nothing but a story and a myth, but to me it is a truth and axiomatic truth though garbed in an illustrative language, a peculiar type of expression wonderfully suiting the time.

To me Mother Ganges water contains properties and elements which cannot be assimilated by human body easily. It is said that it has bactericidal agents. What is the nature of it no one knows. No name has been given to it. This agent must be assimilative. This came in contact with Lord Shivas' 'Jatta', and the Marinl (ight) of Lord Shiva's forehead. What that is, is still unknown and will remain unknowable unless and until our Government or our research masters try to rationalize it.

In foriegn countries like Spain and Italy, there are National Boards which make all sorts of enquiries and publish their results periodically and hence it is you will find a specified list of *spas* whose waters do give health. To quote an instance relating to Spain:

**For digestive disorders** — and those caused by defects in nutrition, Sobron, in Alava-Cestona in Guipuzcoa, Solares Hoznaya, in Santander, Modarize, Guitiriz, Verin, Cabreiroa, Galdas de Malabella, Vallfogona and San Hilario, in Catalonia. Hervidore de Confrentes and Onteniente, in Valencia, Maromo-Lejo, in Jaen, Los de Vilaharta, in Cordoba, Lanjaron, in Granada, and many which belong to the thermal group.

**For diseases of the kidneys and bladder.**—Corconte in Burgos.—Alzola, in Guipuzcoa.—Belasoin, in Navarre.

**For lung diseases.**—Panticoasa, in Huesca.—Urboruaga, in Guipuzcoa.—Ontaneda and Lierganes, in Santander. Zuazo, in Alava. Caldetas de Tuy in Galica.—Betelu, in Navarre—spas Teresa, in Avila, Fortuna, in Murcia, besides those spas which have hot and sulphur springs from which direct and diffused inhalations can be made.

**For rheumatism and arthritis.**—The enormous group of thermal waters are chiefly used. Molinar de Carranza, in Vizcaya, Caldas de Besaya, Puente Viesgo, and la Hermida, in Santader, Caldas de Cuntis, Lugo, Molgas, in Galicia,—Arnedillo, in Rioja—Tiermas and Fitero Nuevo and Fitero Viejo, in Navarre-Caldas de Montbuy, Caldas de Estrach and Titus, La Garriga, in Catalonia.—Alhama de Aragony Jaraba, in Zaragoza—Montemayor, in Caseres.—Ledesma, Retortilla, in Salamanca-Fuente Caliente in Cidudad Real.—Villavja de Nules, in Castellon. —Bellus, in Valencia.—Archena and Alhama, in Murcia.—Alhama de Granada and Zujar, in Granada.

**For rickets and scrofula.**—La Toja, Arteijo, in Galicia, La Muera, in Vizcaya.—Elgorriage, in Navarre.—Medina del Campo, in Valladolid.—Paracuellos, in Aragon.—Trillo, in Guadalajara.—Busot, in Allicante,—Chiclana, in Cadiz.—Tona, in Catalonia and the maritime sanatorium of Talasoterapia.

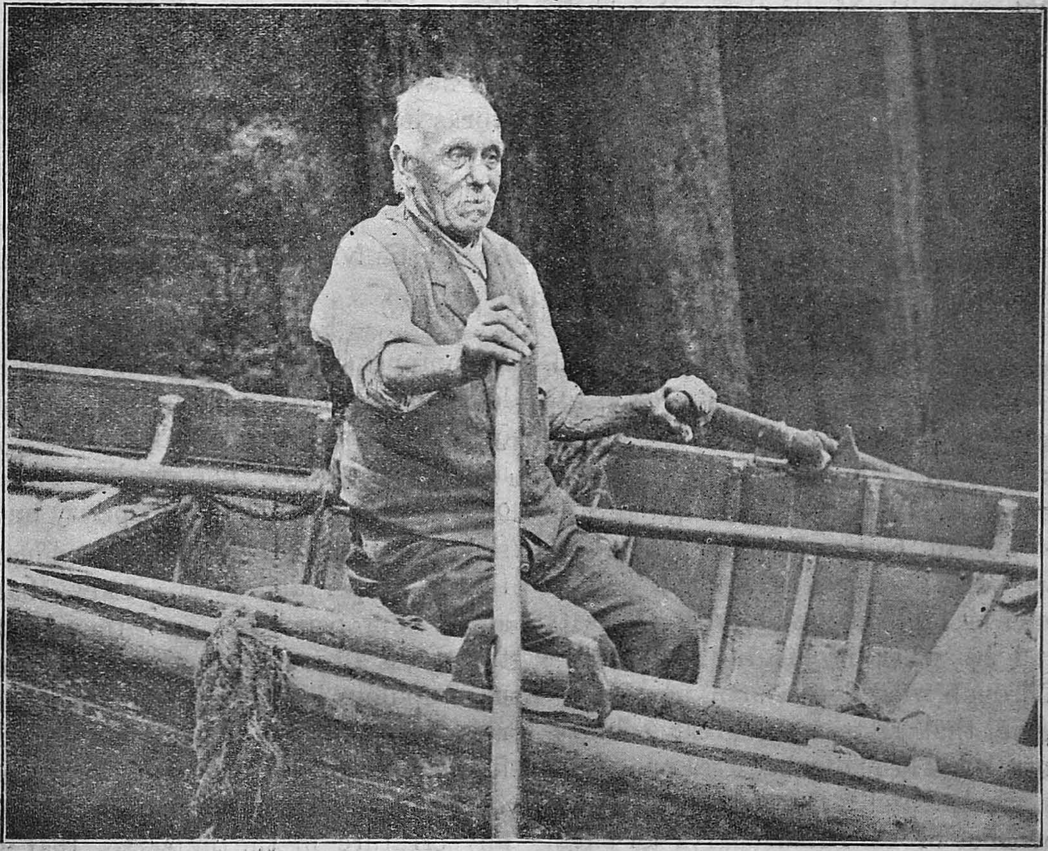
**For skin diseases.**—Ormaiztegui.—Arechevaleta.—Zaldivar.—Villaro, in the Basque country.—La Puda, in Catalonia.—Carballo, Carballino, Cortegada, in Galica.—Gravalos, in Rioja.—Bonar, in Leon.—Alceda, in Santander.—Fuente Podrida, in Valencia. Cucho, in Burgos.

**For neurotic complaints.**—Alanje, in Badajoz. Sacedon and la Isabela, in Guadalajara.—Cardo and Santa Coloma de Farnes, in Catalonia, and others of the oligometalic and radio-active group.

Now Ganges is not a spa, not a spring. It is more than that. It is a running mineral river. It contains admittedly bactericidal properties. It has a sacred myth at its back. Therefore there is a greater reason to go into the matter carefully. Let the scientists east and west, the allopaths, homeopaths, hakims and vaids put their heads together and find out the truth—the real agent which attracted so many of our rishies and munies, yogies and yogeshwars on its banks to pass their days and nights to be one with, 'The One.' They did become one with 'The One', I have no doubt about it.

Now these unknown agents which I previously mentioned I will like to call them as Radio active elements or agents. I am not the only layman who holds this view. I have others also to support me. In my own humble way I requested a professor

friend of mine to examine Ganges water and let me have the result. I supplied him with some water which I had with me at the time and herein, I give his result. "Specimen of water supplied for analysis has been found on the tests applied to contain the following impurities which approximate to about ·03 per cent. Iron, Calcium, Phosphates, silicates, Nitrates and organic substances".



*Rowing in a river is a healthful exercise.*

As to the specimen supplied I am not sure when I got it and in what season.

Ganges water contains none of the impurities as chlorides, s u l p h u r, nitrates, organic matters etc. Any way Ganges water distinctly does not belong to the ordinary type of waters. So this water contains such elements in low potency which are helpful to the growth of health-maintaining and health-producing germs. So says also doctor Hankins of Agra in his book "Cholera and its prevention" and so says Mark Twain in his book "More Tramps Abroad." Detailed discussion is given in the Indian Medical Gazette. Principal Richardson prescribed every day bath and he himself used it for drinking and bathing purposes. So is said of Emperor Akbar. On the

basis of their personal experience and on the basis of eminent authorities, persons like Shri Shri 108 Swami Shankra-Charayaji of Puri and Pt. Madan Mohan Malivayaji do act upon this.

Unfortunately no systematic attempt has been made to popularize it on a rational and scientific basis. It is faith and faith alone that takes us on. But with the faith there should be reason.

I do not claim to be an expert in the line but I am prepared to do my part. I can supply Ganges water to any research scholar, a chemist, a doctor, a vaid or a hakim and so forth. Let them examine it and let me have the result. If they want this water pure, for that we shall have to wait a bit till the end of the year.

Any how as a step to popularize the use of Ganges water I have persuaded Yatru Sukh Sancharak Co., Hardwar to supply it on very moderate charges. It is supplied in tins and bottles.

I have got some ideas as to how it works in the system but that I reserve for the present.

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## HEALTH LESSONS FROM THE MAHABHARATA.

### (ANUSASANA PARVA.)

YUDISHTRA said "...Man, it is said, is endowed with the period of life extending for a hundred years, and with energy and might that are considerable. Why then, Oh grand Sire, do human beings die even when they are very young? By what does a man become endowed with longevity and by what is his life shortened? Through what does a man acquire the fame that rests upon great achievements? Through what does one attain to wealth and prosperity? Is it by penance or by Bramacharya or silent recitation of sacred mantras or drugs? Is it by his acts or mind or speech? Do thou explain to me this, Oh Grand Sire..."

Bhishma said "...It is by conduct that one acquires longevity and it is by conduct that one acquires wealth and prosperity. A man whose conduct is improper or wicked never acquires a long life. All creatures become afraid of such a man and are oppressed by him. If therefore, one wishes one's own advancement and prosperity one should in this world betake to conduct that is proper and good. They that are of improper behaviour, they that transgress all restraint, they that are unscrupulous in respect of sexual congress become short-lived...He that is free from wrath, that is truthful in speech, that never does any injury to any creature in the universe, that is divested of materials and crookedness and insincerity succeeds in living for a hundred years. One should wake up from sleep at the hour known as Brahma Muhurta and then think of both the reason and profit. Getting from bed one should then wash one's face and mouth...One should never

*Extract from translation into English prose from the original sanskrit Text, by Mr. Pratapchandra Roy, C.I.E.

look at the rising sun nor at the setting sun nor should one look at the sun when he is in eclipse, not at midday when he is at the meridian...Persons of every order should never have sexual congress with other people's wives. There is nothing that shortens life so effectually as sexual congress with other man's wife. One should not gaze at urine or faeces or tread on it or touch it with one's feet...One should never wear sandals or cloth that has been worn by another...One should never eat the flesh of animals not slain in sacrifice. One should never eat the flesh of the back of an animal. Having answered calls of nature or having walked over a road one should wash one's feet. One should also wash one's feet before sitting to recite the Vedas or to eat any food...One should clean teeth with the teeth-stick. One should never be in bed when the sun is up. The teeth-stick should be cast off when done with and the new one should be used every day. One should eat only such food as is not forbidden in the scriptures, abstaining from food of every kind on days of the full moon and the new moon. One should answer calls of nature facing north. One should never have sexual congress with a woman that is unknown or with one that is quick with child. One should never sleep with head turned towards the north or the west...One should never bathe in a state of nudity or at night...One should not wear wet clothes every day. One should not answer a call of Nature on a field where crops are grown or at a place too near an inhabited village. One should never answer a call of Nature on a piece of water. One should first wash one's mouth thrice with water before eating any food. Having finished one's meal one should wash one's mouth thrice with water and twice again. One should eat one's food restraining speech and without censuring food that is eaten. One should never seat himself upon husk of corn or upon hair or upon ashes or upon bones. One should on no account use the water that has been used by another for bathing. One should always eat in a seated posture. One should never eat while walking. One should never answer a call of Nature on ashes or in a cow-pen. One should wash one's feet before sitting to one's meal. One should never sit or lie down for sleep with wet feet. One should never sleep in a state of nudity. One should never even touch the remnants of other people's dishes and plates. One should never strike another on the head or sieze another by the hair. One should not while bathing repeatedly dip one's head in water; by so doing one shortens one's life. One who has bathed by dipping the head in water should not afterwards apply oil to any part of the body. One should never make a meal without eating some sesame. One should always throw remnants of one's dishes and plates at a spot far removed from one's habitation. One should not wear garlands of red flowers. After one has bathed, Oh King, one should use perfumes mixed with water. One should never wear one's upper garment for covering the lower limbs or the lower garments for covering the upper ones. When one goes to bed, one should wear a different piece of cloth. When making a journey along a road one should wear

a different piece of cloth. One should always abstain from sexual congress on the days of the full moon and the new moon. The flesh of goat, of kine and the peacock should never be eaten. One should also abstain from dried flesh and all flesh that is stale. One should eat once in the morning and once in the evening abstaining entirely from all food during the interval. One should never eat any food in which one may detect a hair. One desirous of good should never drink curds at the conclusion of a meal. One should after finishing one's meal wash one's nose, eyes and ears and naval and both hands with water. One should never indulge in sexual congress at day time nor should one have congress with a maiden, nor with a harlot, nor with a barren woman. One should not sleep in the evening twilight. Inviting the guest at night one should never with excessive courtesy force him to the point of gratification nor should one eat oneself to the point of gratification at night. In wedding one should avoid a woman that is deficient of any limb. The woman of the same *pravara* should also be avoided and also one that has been born in the race to which one's mother belongs. One should never have sexual congress with a woman that is old, or one who is afflicted with leprosy, or one born in a family in which there has been epilepsy, or one that is born in a family in which there is leprosy, or one belonging by birth to a race in which there are early deaths. Sleep at day time shortens life. To sleep after the sun has risen shortens life. If one indulges in congress with his wife on the fifth day from the first appearance of the functional operation gets a daughter, by indulging on the sixth day one happens to have a son. I have thus told you of the indications in brief of persons who succeed in living long. What remains untold by me should be heard by thee from the persons well versed in three Vedas. Thou shouldst know that conduct is the root of prosperity. Conduct is the enhancer of fame. It is the conduct that prolongs life......"

## HONEY AS A FOOD.

HONEY as a food has been recognised by almost all countries of the world and recently we come across an interesting article on the subject by Dr. Lewis C. Breaker which may seem interesting to our readers.

In the olden days, before trade with the tropical countries introduced cane sugar to the markets in the more temperate regions, honey was the most common sweet substance available for human consumption. At the present time, with the advance of so-called civilization and modern agriculture as well as manufacturing and transportation methods, cane sugar appears on our market at such low prices that we are apt to forget the proven benefits of honey. The hundreds of thousands of instances of bad teeth among school children can be traced directly to the substitution of white refined sugar for honey in the diet.

In the early days, honey was strictly a "wild" sweet. The modern hive was unknown and human beings had

to depend upon finding a swarm of bees about hollow trees or out of the way crevices in rocks. Even to-day in many parts of the world, "wild" honey is still gathered. On account of the inaccessible places where it has been deposited in the deep crevices and the difficulty of extracting the irregular combs, much of the honey is lost and wasted. The idea of "keeping bees" is a comparatively late innovation, but it has eliminated waste and has made this sweet available to the masses at a price within reach of everyone.

Until a few years ago, honey could be acquired only in strained form and the poor methods of extracting permitted much of the refuse to remain, with the result that the product was rather uncertain from a sanitary point of view. Now, centrifugal machines with an intricate straining system are brought into play and a clean, pure honey is produced.

Although honey is composed chiefly of different sugars, it is not only harmless but highly beneficial as a food for human beings. The "making" of honey by the bees, a process not entirely understood, results in a predigested sugar from which the energy is liberated during human digestion more quickly than other fuel foods—starch and fat.

The average honey contains 18 parts of water, 78 parts carbohydrates, 0·2 parts minerals and nearly 4 parts of undetermined substances, such as pollen grain, gum, bee glue, formic acid and volatile oils.

There are really two kinds of honey—floral or normal and honeydew or abnormal. The floral is that made from the nectar, a sweet liquid secreted by flowers. The honeydew is a sweet substance deposited on vegetation by plant lice and other insects.

The entire process of honey making is still a secret from the scientists. However, it is authentically proven that the chief materials that the worker bees bring to the hives are nectar, pollen and propolis. The nectar is sucked from the flower by the bee with its long tongue and when it is swallowed, it goes into the honey sac where certain chemical changes take place. Pollen, a fine powder, formed within the anther of a flowering plant, is very rich in proteins and is important for food to the young and developing bees. Propolis is a glue-like substance which the bees utilize to render the hives waterproof, fill up the cracks and strengthen the edges of the comb. The wax which plays such an important part is secreted by special glands in the abdomen of the bee.

Honey contains several kinds of sugar—some yet unknown. The most common are sucrose, dextrose and levulose, as well as dextrin. Sucrose is a white, crystalline compound and is the same chemically as the sugar of cane, beet and maple. Dextrose is a sugar which is found in vegetables, animal organisms, etc., and is less sweet than cane sugar. Levulose is designated as fruit sugar. Dextrin is usually present in the sap of plants and seems to have its base in starch. All of the sugars are pre-digested.

The minerals which are the most abundant in honey are magnesia, lime, phosphoric acid and iron.

While there are only two kinds of honey, there are many different flavors. These flavors depend on the blossom

from which the nectar was extracted. Different localities produce different flavors and while they are quite dissimilar in color and taste, they contain approximately the same chemical content.

All honey is pre-digested and may be eaten with perfect safety, whether the nectar comes from orange blossoms, sage, clover, buck-wheat, alfalfa or a variety of flowers.

Through the knowledge that the sugars in honey have undergone a chemical change in the bee, scientists have universally agreed that honey is one of the most healthful foods for mankind.—*The Journal of Ayurveda.*

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## KEEPING FIT.

Most people have their own ideas as to the best methods to adopt for keeping fit. Some swear by the "daily dozen"; some aver that the walk to and from the station each day is all that they need; others claim that the occasional round of golf or some other game keeps them in good condition. Now let us see what Edith Picton-Turbervill, formerly M.P. for The Wrekin, has to say about her secret of keeping fit. "The greatest reason for my present fitness is, I believe, the enthusiasm with which I played games as a girl. Frequently I played more than a hundred games of tennis in an afternoon, although I never believed in going to the courts when I felt I was mentally tired. I was a keen cyclist, devoted to a sport little practised nowadays—archery. ... Drawing an arrow to the head of a six-foot bow is no work for weaklings, yet the whole movement is made so gradually that there is no excessive strain. It is an ideal exercise for building up the muscles, not only of the arm, but of the whole body." This athletic woman believes that mental activity is the next important factor in good health, and holds that the men and women who give themselves no time to think about their bodies are rarely ill. She further believes that enthusiasm is an excellent mental antiseptic: "I am sure that indigestion and similar complaints are often due as much to auto-suggestion as auto-intoxication from the wrong sort of food. I have seen many a chronic dyspeptic carried away by the good company at a jolly dinner, and eat everything that he should not with no evil consequences," she says; and if she were asked "How can one live to be seventy?" her reply would be: "Play games as much as you can in your youth. Work as hard as you can, preferably at some task for which you have unbounded enthusiasm. Spend your week-ends on your feet, for if you use your legs you will brighten your mind and strengthen your body to resist the many minor illnesses which stand in the way of a long, happy life."

**Walk to Health.**—There will be few who will deny the sound sense of the above views of Edith Picton-Turbervill, especially in regard to such a healthy exercise as walking. In a press article, Dr. Frederic Graves puts for-

ward the opinion that "there is little real walking (apart from actual hiking at the week-end) in the winter season, and after six days at the desk, in the mill or the factory, our overloaded systems have little chance to discharge fully the poisons that we have accumulated during the week." The doctor-writer submits that the tramp is an excellent means for massaging the muscular system, for freshing the nerve tracts, and clearing the ducts and glands. "It puts practically all our internal machinery on the move, directly or indirectly," he says. This is undoubtedly the time of the year when everybody should begin to walk their way to health. There is no better beginning for the day, and there never will be, than a brisk half-hour's walk in the fresh morning air. It fills the lungs with Nature's own restorative, it drives out the germs that the cold winter months have been secretly depositing, and it sets up a cheerfulness of the blood and of the spirits that lasts all the day. In our estimation many people starve themselves of fresh air. Yet they never think of starving the stomach for more than a a few hours. If all who live in towns would make a habit of getting up a little earlier, and walking instead of riding in omnibus or tramcar or train, they would be healthier and better-tempered. Even to start to work ten minutes earlier and walk, or take ten minutes less at lunch and walk ten minutes more after it, would work wonders in the way of better health. Try it and see!—*Health for All.*

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## HEALTH TIT-BITS

**Public Health and Economic Depression.**—Many people are under the false notion that they can solve the present economic depression to some extent by reducing the public health expenditures. But if they give a careful consideration on this subject, they will realise that the more we spend on public health work, the more we gain economically. No money equivalents are attachable to the joy of safe-guarding the young and old from the preventable diseases.

Louis I. Dublin in his Presidential address delivered before the American Public Health Association observed:—The present economic depression has not adversely affected the physical resistance of the people of America because of the splendid achievements that have been attained in the field of public health for the past three years. The most important factor in the present depression has been the continued and effective function of the Health departments, the medical profession and the social agencies. The public health of a country should play a transcendent part in enabling the people to meet depression, withstand it and live it down so fas as their physical distresses are concerned. The depression should not be allowed to serve as an excuse for curtailing the amount expended on public health. It would really be a short-sighted and irrational policy if the government of any country takes such a disastrous step to meet out the economic depression, for it is needless to say that health is wealth.

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**Asleep for more than a year.**—It is more than a year since an athletic girl aged 27, sank into a coma in Illinois. In February, 1932, the girl was noticed to be drowsy for a day or two and then fell into a deep sleep from which she could not be awakened.

She was first diagnosed as a case of sleeping sickness. Since then, thousands

of suggestions for curing the girl have been tried and the best knowledge of science has been applied. Blood transfusions have been given and now nothing remains but to wait.—*The Journal of Indian Medical Assn.*

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**Brain Must Keep Pace with Body.**—Longevity has quality as well as quantity, Dr. Charles H. Mayo, the famous surgeon, is quoted in *Good Health Magazine* as saying: "Undoubtedly," he continues, "a human being would be able to live longer in the next half century than now. But the problem of the medical profession was to build up the brain so that it advanced in development with the body." Doctor Mayo asks if it is worth while to make it possible for a man to live to ninety if his brain dies at seventy. In institutions and homes there are scores of old people in their second childhood, merely vegetating just like trees, possessing a strong body but with a brain that is almost thru functioning. Unless persons are taught how to live so that their intellects will continue active for the years added to their lives, there is little use, according to Doctor Mayo, in increasing the life span.—*Burl. (Vt.) Free Press and Times*, January 5, 1931.—*American Medicine.*

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**The Tyranny of Tea.**—While we are on the subject of drinking, let us consider the powerful hold that tea has upon the people. We are led to understand that since the beginning of the present century the increase in tea-drinking has been tremendous. "In 1928 no less than 421 million lb. was retained for home consumption, or an average of over 9 lb. per head of the population," says a report on tea progress. "Tea goes into every home, from the palace to the cottage, and it is estimated that over 220 million cups of tea are drunk daily in this country. This increase in consumption is probably due to the early-morning cup-of-tea habit among domestic servants, shoppers, and business women, the early-afternoon cup of tea in offices, and an increase of tea-drinking among manual labourers in the place of alcoholic beverages," continues the report. It is commonly held that tea is not only refreshing in itself, but is a harmless stimulant. We do not doubt that tea is stimulating in character, but whether it is harmless in effect is a matter for debate. The main point to be considered is that there is no food value in tea itself. Like coffee, it first stimulates and then depresses. It is a laxative at first, but if it is taken in sufficient quantities covering a long period, it will help to derange the nervous system. Tea contains two elements, known as theine and tannin, which are deadly poisons when taken in concentrated form. The best that can be said of tea is that it is stimulating, and the worst is that it is an acid-former.—*Health for All.*

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**Freaks in Medicine:**—Li Tsin-yun, the oldest man alive who has seen his eleventh generation, claims to have been born in the 17th year of the reign of King Huen-hu (1678).

For 200 years he has travelled on an average of 100 li (about 30 miles) a day, selling herbs and medicine for a living and giving care to the sick as a Chinese family doctor.

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La Belle Paule Fieschi, of Rue de la Perle, Paris, gave birth to her 7th child, a boy on December 1st 1742, when she was 90 years of age.

Her eldest child at the time was 70 being born in 1722, while the youngest of the six was 60. — *Home and Homœpathy.*